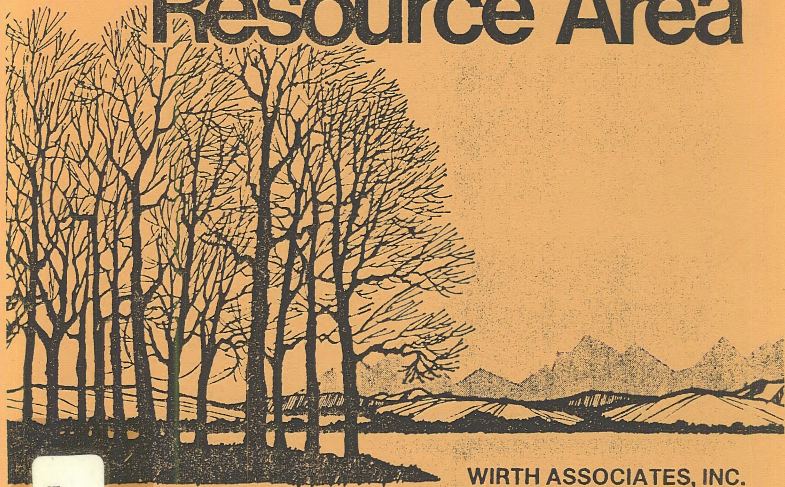




BLM Colorado Visual Resource Inventory

North East Resource Area



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WIRTH ASSOCIATES, INC.
Denver, Colorado

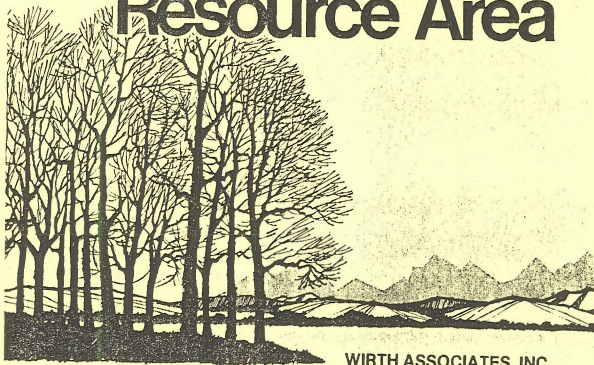
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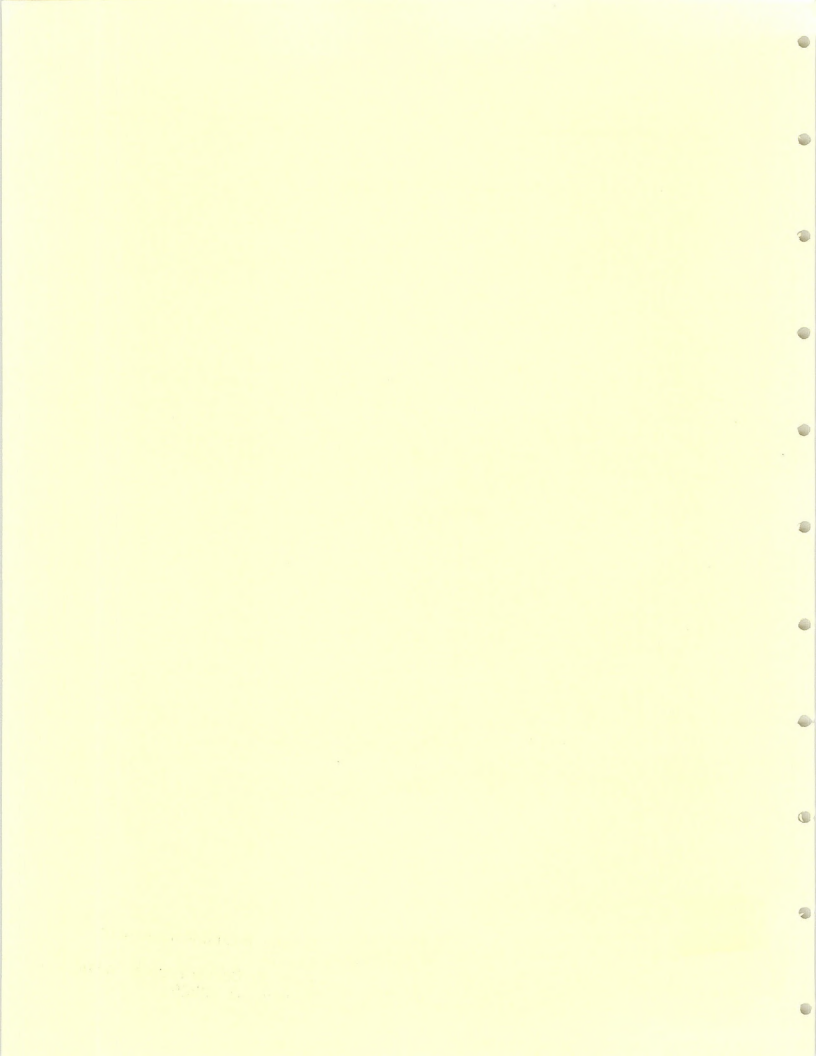
BLM Colorado Visual Resource Inventory

North East Resource Area



WIRTH ASSOCIATES, INC.
Denver, Colorado

Bureau of Land Management
Library
Bldg. 50, Denver Federal Center
Denver, CO 80225



CSO Lib wirth
associates

December 3, 1979

Mr. Bill Bottomly
Landscape Architect
Bureau of Land Management
Colorado State Office
Colorado State Bank Building
1600 Broadway
Denver, CO 80202

Dear Bill:

Enclosed are the draft reports and base maps for the Northeast and Royal Gorge Resource Areas. Included within these reports are the photographs corresponding to the Resource Area. We would appreciate your comments concerning the contents of these reports and the appropriate maps if there are any problems.

Sincerely,

WIRTH ASSOCIATES, INC

Tim Tetherow

Tim Tetherow
Project Manager

Wirth Associates

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INTRODUCTION



VISUAL RESOURCE INVENTORY
NORTH EAST AND ROYAL GORGE RESOURCE AREAS
PAWNEE, SAND HILLS, BIG SANDY, FOUNTAIN CREEK
AND EASTERN PLAINS PLANNING UNITS

INTRODUCTION

This report constitutes a draft Visual Resource Inventory of the Northeast and Royal Gorge Resource Areas (RA), Colorado. The Inventory has been conducted for all of the Pawnee, Sand Hills, and Big Sandy Planning Units which encompass 10,842,000 acres of BLM and private lands within the Northeast RA, and Eastern Plains and Fountain Creek Planning Units encompassing 9,923,000 acres within the Royal Gorge Resource Area. This study has been conducted in compliance with the BLM Manual Section 8411 - Upland Visual Resource Inventory and Evaluation, with modifications as outlined in the Methodology section. Modifications take into account the nature of the Eastern Plains physiographic province as well as the regional scope of the study.

The entire inventory is composed of the following components:

- 1) Photo Index
- 2) Scenic Quality Rating Units
Scenic Quality Ratings
- 3) Use Volume
- 4) Visual Sensitivity
- 5) Distance Zones

Photographs:

35 MM color slides. All photographs are provided in the accompanying volume with an index.

The field inventory was conducted between November 6 and 12 and included 14 person days of field study.

STUDY TEAM

The study was conducted by a team of Landscape Architects with interdisciplinary input from BLM staff. Wirth Associates staff included the following individuals:

PROJECT DIRECTOR

Tim Tetherow - Landscape Architect

PROJECT MANAGER

Mark Figley - Landscape Architect

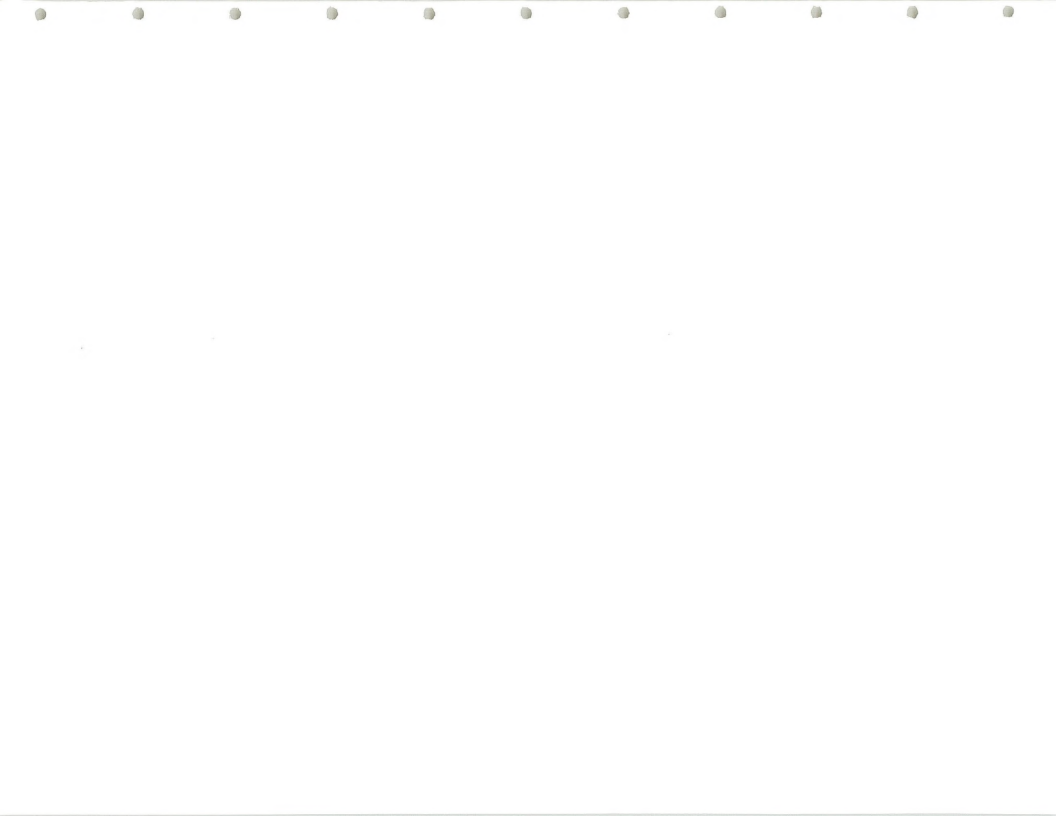
STUDY PARTICIPANTS

Craig Taggart - Landscape Architect

Ruth Murayama - Landscape Architect

Lois Brink - Landscape Architect

All participants are employees of Wirth Associates, Inc.



METHODOLOGY

The sequential steps involved in the inventory of Scenic Quality, Visual Sensitivity, and Distance Zones are outlined as follows:

SCENIC QUALITY

- 1) Determine and map Scenic Quality Rating Units (SQRU)
- 2) Rate and Document Scenic Quality levels

VISUAL SENSITIVITY

- 1) Determine important viewer locations (Key Observer Points - KOPs)
- 2) Determine the land that can be seen from the KOP (seen area analysis)
- 3) Map use volume levels for KOPs within the seen area
- 4) Determine final sensitivity levels based upon use volume and use association

DISTANCE ZONES

- 1) Determine KOPs (as above)
- 2) Determine seen area from KOPs
- 3) Map distance zones within the seen area

A two-phased approach to the inventory of visual resources was developed for the study. The first phase involved preliminary mapping in the office, while the second phase was done in the field and involved confirmation of preliminary mapping and scenic quality ratings.

Phase one involved the following basic steps:

- A. Preliminary determination of Scenic Quality Rating Units (SQRU) in the office from soil resources texts of Colorado, topographic maps, and aerial photographs.
- B. Determination of KOPs in the office from BLM and other agency data.
- C. Preliminary determination of the seen area from KOPs.

- D. Mapping use volume levels of KOPs.
- E. Preliminary mapping of Distance Zones from KOPs.

Phase two involved the following basic steps:

- A. Field verification of SQRU boundaries, and Scenic Quality Rating.
- B. Field verification of Seen Area and Distance Zones.
- C. Determination of sensitivity levels based upon user volume and use association.

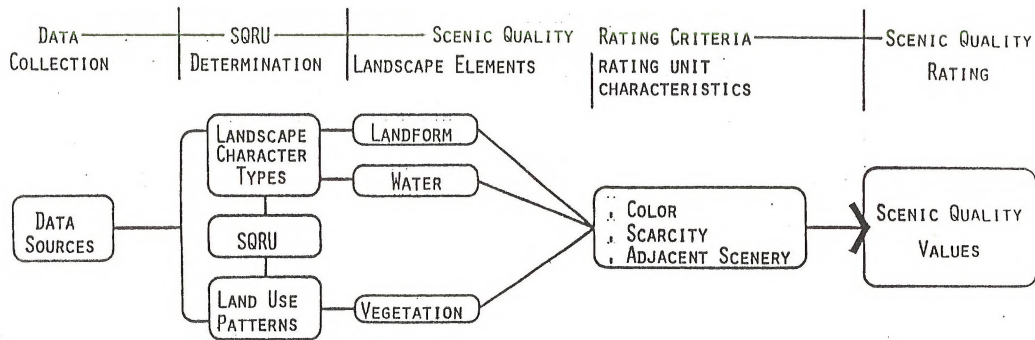
This two phased approach was devised and utilized for efficiency in completing the inventory portion within the short time allotted for each Resource Area. (Specifically, field team members had a preliminary indication of rating units, ratings, and zones to react to, rather than having to start from a blank base map in the field).

SCENIC QUALITY

The analysis of the Eastern Plains "scenic quality" included a number of steps. Early in the study, the scenic quality rating unit is established, thereby defining the scale of analysis and the physical size of each area (or unit) to be field checked. The determination of these units is subjective, but not arbitrary. During field inspection scenic quality rating units were refined as needed.

The regional process in the analysis of scenic quality developed for this study is shown in Figure 1.

The scenic quality rating based on subjective data becomes a relative indicator of the landscape's visual quality. The data used was formulated by the BLM



REGIONAL SCENIC QUALITY RATING PROCESS

and outlined in their manual (8411) on the subject. A revised rating scale was developed for this study so that it would be more applicable to the eastern plain physiographic province. These elements: Scenic Quality Rating Unit determination, and Scenic Quality Rating criteria make up the procedural components of scenic quality. Detailed sections of each element follow.

SCENIC QUALITY RATING UNIT DETERMINATION

The Scenic Quality Rating Units (SQRU) were defined through a two-step process which entailed 1) predelineation of units, and 2) field refinement and final delineation. Within each of these steps, the rating units were refined to reflect their physical boundaries from the following criteria.

1) Predelineation of Units

a) Data Sources - The data collection areas were first defined by Bureau of Land Management (BLM) Resource Areas and Planning Units. From the Planning Unit boundaries initial rating units were drawn using guidelines supplied in the BLM Manual 8411, "Upland Visual Resource Inventory and Evaluation". Rating units were delineated from a series of base data sources which included topographic maps (1:250,000 USGS District quadrangles), soil association maps (1:250,000 - Soil Resources of Colorado), Landsat imagery (1:250,000), and Soil Conservation Service land use maps (1:125,000). The key element in establishing rating units is discerning areas of physiographic integrity; where physical size became unimportant and gave

way to defining areas of similar scenic quality. To accomplish this task, scenic quality rating units were delineated based upon the combination of landscape types and land use patterns.

b) Landscape Types - Landscape Types were derived from the identification and delineation of soil associations. Based upon narratives of the association, the degree of slope, and the soil types which make up the association, the following general landscape types were identified: major river valleys, minor river valleys, sandy uplands, sand hills, ridges, broken river valleys, terraces, upland rolling hills, broad valleys, mountains, hogbacks, Black Forest, mesas, and reservoirs.

c) Land Use Patterns - Land use patterns were primarily identified from infrared Landsat imagery. As a secondary source, the Land Use maps provided by the Soil Conservation Service were used as a back-up source, as well as a check to areas and land uses in question. The following general land use patterns emerged: native riparian vegetation, irrigated agriculture, non-irrigated agriculture, grazing lands, pinyon juniper or Ponderosa Pine, mixed sub-alpine conifer, and mixed agriculture/grazing.

Scenic Quality Rating Unit Determination Process - Since a variety of land uses may occur within a single landscape type, it became necessary to subdivide landscape types by land use patterns. Using an overlay process at a scale of 1:250,000, landscape types and land use patterns are combined to delineate areas of similar scenic quality. Through this process a distinction can be identified

between upland rolling hills used for irrigated agriculture uses from upland rolling hills dominated by grazing uses. The identification of landscape types and land use patterns provides a basis for delineating scenic quality rating units.

It became apparent during the preliminary mapping stages that in most cases there was good correlation between the landscape types and land use patterns, since the landscape types would have a great influence upon the land uses taking place. Where line delineations were close, land use patterns and their line delineation were followed because of the visual prominence. Land use patterns and vegetative associations were considered the more visually dominant element. In other situations such as a broken river valley, the landform or topography delineation was followed, since the landform would tend to visually dominate the land use pattern. These delineations required careful analysis of scale and visibility.

2) Field Refinement and Delineation

Using topographic field maps with the refined rating units drawn on them, the field team drove through each planning unit, first to become familiar with the general area, and then specifically to become familiar with samples of each rating unit for the purpose of rating scenic quality. A preliminary concern during the field studies was to check the methodology of combining landscape types and land use patterns to arrive at rating units, and secondly to identify the relationships in terms of scenic quality between rating units.

SCENIC QUALITY RATING CRITERIA

General Approach

The scenic quality rating is a relative indication of the visual quality of the landscape based on a systematic approach and analysis of the landscape elements. Considered are the physical components of landform, water, vegetation, color, (and) the relative scarcity or uniqueness of that particular landscape type within the region; the degree to which lands in adjacent rating units enhance its overall visual quality. Cultural modifications, or the degree to which land uses have altered the natural landscape are normally evaluated, but were not taken into account in the overall rating of the landscape at this regional level of detail. Each rating criteria receives a score; the combined total then determines one of three levels (A, B, & C) of scenic quality.

Revised Rating Criteria and relative scores were developed for this study so that they would be more applicable to the Eastern Plains physiographic province where the landscape diversity, in contrast to the Southern Rocky Mountain Province, is very subtle. The revised scenic quality inventory and evaluation criteria and relative values are shown in Figure 2.

Due to the extensiveness and homogeneous character of the Eastern Plains, it would be impractical to rate each rating unit separately on the ground. The landscape types and land use patterns were rated individually based on the following scenic quality rating criteria:

Landscape Character Type Rating Criteria

Two scenic quality rating criteria are directly applicable to landscape types: 1) landform and 2) water. The following are brief discussions on how these apply:

SCENIC QUALITY- EASTERN PLAINS INVENTORY and EVALUATION CHART

key factors

rating criteria and score

landform	High vertical relief as expressed in prominent cliffs, spires or massive rock outcrops, or severe surface variation or highly eroded formations including major badlands or dune systems, or detail features dominant and exceptionally striking and intriguing such as glaciers. 5	Rolling hills, or foothills, cinder cones, or interesting patterns or variety in size and shape of landforms or detail features present and interesting though not dominant or exceptional. 3	Terrace lands, fans, or flat valley bottoms. Interesting detail landscape features few or lacking. 1
vegetation	A variety of vegetative types as expressed in interesting forms, textures, and patterns. 5	Some variety of vegetation, but only one or two major types. 3	Little or no variety or contrast in vegetation. 1
water	Clear and clean appearing, still, cascading white water, any of which are a dominant factor in the landscape. 5	Flowing, or still, but not dominant in the landscape. 3	Absent, or present, but not noticeable. 0
color	Rich color combinations, variety or vivid color; or pleasing contrasts in the soil, rock, vegetation, water or snow fields. 5	Some intensity or variety in colors and contrast of the soil, rock and vegetation, but not a dominant scenic element. 3	Subtle color variations, contrast or interest; generally mute tones. 1
influence of adjacent scenery	Adjacent scenery greatly enhances visual quality. 5	Adjacent scenery moderately enhances overall visual quality. 3	Adjacent scenery has little or no influence on overall visual quality. 0
scarcity	One of a kind; or unusually memorable, or very rare within region. Consistent chance for exceptional wildlife or wildflower viewing, etc. 6	Distinctive, though somewhat similar to others within the region. 2	Interesting within its setting, but fairly common within the region. 1
cultural modifications	Free from aesthetically undesirable or discordant sights and influences; or modifications add favorably to visual variety. 2	Scenic quality is somewhat depreciated by inharmonious intrusions, but not so extensive that the scenic qualities are entirely negated or modifications add little or no visual variety to the area. 0	Modifications are so extensive that scenic qualities are for the most part nullified or substantially reduced. -4

SCENIC QUALITY

A = 19-33

B = 12-18

C = 0-11

- Landform

Each landscape type is analyzed in terms of landform diversity and compared to other landscape types in the Eastern Plains in order to establish relative values. Once relationships are identified, a hierarchy of landscape types is established in terms of landform diversity.

- Water

The same process applies in deriving a value for water features from landscape types. Again, the relationships of the landscape types are analyzed in terms of the water features present within a particular landscape type. After these relationships have been identified, a hierarchy of landscape types is established in terms of the water features.

As an example, a mountainous landscape type can be broken down into its landform diversity and abundance of water features. Based upon its relationships to other landscape types, a mountainous type would represent a very high value with regard to its landform diversity, whereas the same landscape type would represent a moderate value in terms of its water features. In contrast to a mountainous landscape, a major river valley would be on the low end of the scale in terms of landform diversity due to its characteristically flat and uniform flood plain. In terms of its water features, a major river valley would represent a very high value. Once the relationships are identified a value can be placed upon a landscape type in terms of its landform diversity and its water features.

The following are landscape types that have been identified in the Eastern Plains physiographic province. Landform and water rating criteria have been applied to each landscape type as indicated.

Landscape Types

- | | |
|-------------------------|-------------------------|
| 1) Major River Valleys | 7) Terraces |
| 2) Minor River Valleys | 8) Upland Rolling Hills |
| 3) Sandy Uplands | 9) Broad Valleys |
| 4) Sand Hills | 10) Mountains |
| 5) Ridges and Bluffs | 11) Hogbacks |
| 6) Broken River Valleys | 12) Black Forest |
| | 13) Mesas |
| | 14) Reservoirs |

Landscape Types	LANDFORM DIVERSITY					WATER FEATURES				
	High		Med.		Low	High		Med.		Low
	10,11 5 6 13		9 12	3 4 8	1,2, 7, 14	1 14		6,9, 10	2 7	3,4,5 8,11, 12,13
Value	5	4	3	2	1	5	4	3	2	0

Detailed discussions of each landscape type are provided in the following section, including descriptions of landform and water diversity.

Land Use Pattern Rating Criteria

From land use patterns as a data source, it is possible to identify and delineate a third rating criteria, vegetation.

Vegetation

Similar to landscape types, a relationship can be developed between land use patterns in terms of vegetation as a landscape element. Each vegetative association is analyzed in terms of its vegetative diversity, pattern, and texture. Once a relationship is developed between land use patterns or vegetative associations, a hierarchy of vegetative

associations can be developed in terms of its diversity and affect upon the scenic quality of a site.

As an example, heavy riparian vegetation would represent a high value, whereas grazing lands which have little diversity of type, texture, or pattern would represent a very low value with regard to vegetative diversity and its affect upon scenic quality.

The following are land use patterns that have been identified within the Eastern Plains study area. Vegetative rating criteria have been applied to each land use pattern as indicated.

Land Use Patterns

- | | |
|------------------------------|-------------------------------------|
| a) Native Riparian | e) Pinyon/Juniper or Ponderosa Pine |
| b) Irrigated Agriculture | f) Mixed Sub-Alpine Conifer |
| c) Non-irrigated Agriculture | g) Mixed Agriculture/Grazing |
| d) Grazing | |

VEGETATIVE DIVERSITY

Land Use Patterns	High		Mod.		Low
	a, f	b	e	c g	d
Values	5	4	3	2	1

Detailed discussions of each land use pattern are provided in the following section as they apply to vegetative diversity.

After a value is given to each landscape type in terms of landform diversity and the abundance of water features, and a value is placed upon the vegetative

associations, the combinations of land use patterns and landscape types which delineate rating units will have values for three of the six landscape elements which determine the rating units scenic quality. As an example, an upland rolling hill landscape dominated by irrigated agricultural uses is identified as a rating unit. Based upon the relationships previously developed for the landform, water, and vegetative diversity, values can be determined for these elements which will be combined with the three remaining scenic quality rating unit characteristics and their values to determine the scenic quality for this particular rating unit.

Rating Unit Characteristics

The remaining elements of color, scarcity, and adjacent scenery are derived from the rating unit, rather than from the independent data sources of landscape types or land use patterns.

. Color

Color as a landscape element is based upon the combination of landscape types and land use patterns. Color is not a function of one particular element, rather it is a function of the combination of landform, water, and vegetation. If all the combinations of landscape types and land use patterns are delineated which define scenic quality rating units, it is possible to set up a relationship between rating units. A hierarchy of rating units can be developed and a value can be placed upon the rating units in terms of color and its affect upon the scenic quality of the unit.

Values determined for color and its influence upon scenic quality rating units are listed in Table 1.

TABLE 1
NORTHEAST RESOURCE AREA
SUMMARY RESULTS OF SCENIC QUALITY

Rating Unit	Rating Criteria							Total	SQR
	L	W	V	C	AS	S	CM		
1a	1	5	5	5	0	3	2	21	A
1b	1	5	4	4	0	1	2	17	B
2a	1	2	4	3	0	1	2	14	B
2b	1	2	4	3	0	1	2	13	B
2d	1	2	1	2	0	1	2	9	C
3b	2	0	4	2	0	1	2	11	C
3c	2	0	2	2	0	1	2	9	C
3d	2	0	1	1	0	1	2	7	C
4b	2	0	4	2	0	1	2	11	C
4c	2	0	2	2	0	1	2	9	C
4d	2	0	1	1	0	1	2	7	C
4a	2	0	2	1	0	1	2	8	C
5d	4	0	1	3	1	2	2	12	B
6d	4	3	1	3	0	2	2	15	B
7b	1	2	4	3	1	1	2	14	B
7c	1	2	2	2	1	1	2	11	C
7d	1	2	1	1	1	1	2	9	C
8b	2	0	4	2	0	1	2	11	C
8c	2	0	2	2	0	1	2	9	C
8d	2	0	1	1	0	1	2	7	C
8e	2	0	3	3	0	1	2	11	C
8a	2	0	2	1	0	1	2	8	C
9d	3	3	2	2	0	2	2	14	B
10e	5	3	3	3	1	2	2	19	A
10f	5	3	5	4	0	3	2	22	A
11e	5	0	3	4	3	2	2	19	A
14b	1	5	4	3	0	3	2	18	B
14d	1	5	1	3	0	3	2	15	B
14e	1	5	3	4	3	3	2	21	A

L - Landform
 W - Water
 V - Vegetation
 C - Color
 AS - Adjacent Scenery
 S - Scarcity
 CM - Cultural Modifications
 SQR - Scenic Quality Rating

- Scarcity and Adjacent Scenery

Similar to color as a factor upon scenic quality, the scarcity or uniqueness of a rating unit, and the influence of adjacent landscapes or rating units upon a specific rating unit's scenic quality are determined on a rating unit basis.

Values determined for these landscape elements or rating criteria and their impact upon the various scenic quality rating units are listed in Table 1.

- Summary

These relationships and values were determined on a preliminary basis in the office. During the field inventory stage of the study, the relationships and values were adjusted to reflect their true values and their affect upon the scenic quality of the rating units.

The rating units that exist from the combination of landscape types and land use patterns identified within the Eastern Plains study area are shown in the following chart. The rating criteria and their values for each rating unit are listed in Table 1.

The scenic quality ratings for the various units are intended to serve as a guide to the scenic quality of the individual BLM land holdings which fall within the various scenic quality rating units. Due to the regional approach of this study, there is diversity within each of the rating units. It is possible that specific sites within a rating unit may be higher or lower in scenic quality than the overall rating unit itself due to a change in value of any of the landscape rating criteria. As an example, Two Buttes situated north of Springfield, or the two isolated Pawnee Buttes

north of Raymar are site specific interest points which would have a greater scenic quality value than the rating unit in which they are located within. It was impractical to identify features on a site specific basis such as this. The intention of the study was to define and delineate the level of scenic quality and the diversity of landscapes found within the Eastern Plains on a regional basis.

Scenic Quality Rating Units and Ratings identified within the Canon City District are shown in Figure 3. Scenic Quality Rating Units and Ratings within the Resource Area are listed in Table 1.

CULTURAL MODIFICATION CRITERIA

Cultural modifications are normally inventoried and evaluated in regard to their overall effect on the visual quality of the landscape using the criteria prescribed in Section 24 of the BLM's Manual 8411 - "Upland Visual Resource Inventory and Evaluation". Due to the scope of the study and the regional approach to the inventory of scenic quality, cultural modifications were not evaluated in this study. The primary reasons for omitting this segment of the inventory are two-fold. First, due to the size of the individual rating units, cultural modifications typically in the form of transmission lines, pipelines, power generation plants, gravel operations, and gas and oil drilling and pumping stations, would have little impact upon the entire rating unit in general. These modifications do have a site-specific impact and should be evaluated in terms of their impact upon scenic quality at this level of detail.

SCENIC QUALITY RATING UNITS AND RATINGS WITHIN
THE EASTERN PLAINS PORTION OF THE CANON CITY DISTRICT

	MAJOR RIVER VALLEYS		MINOR RIVER VALLEYS		SANDY UPLANDS		SAND HILLS		RIDGES		BROKEN RIVER VALLEYS		TERRACES		UPLAND ROLLING HILLS		BROAD VALLEYS #1		MOUNTAINS		HOGBACKS #1		BLACK FOREST #2		MESAS #2		RESERVOIRS	
Land Use Patterns	1	2	3	4	5	6	7	8	9	10	11	12	13	14														
NATIVE RIPARIAN a	1a A	2a B																							14 a	A		
IRRIGATED- AGRICULTURE b	1b B	2b B	3b C	4b C			7b B	8b C																	14 b	B		
NON-IRRIGATED AGRICULTURE c			3c C	4c C			7c C	8c C																	14 c	B		
GRAZING LANDS d		2d C	3d C	4d C	5d B	6d B	7d C	8d C	9d B																14 d	B		
PINYON/JUNIPER or PONDEROSA PINE e		2e B			5e B	6e A		8e B		10e A	11e A	12e B	13e A	14e A														
MIXED SUB-ALPINE CONIFER f					5f B					10f A																		
MIXED AGRICULTURE/ GRAZING g				4g C				8g C																				

Scenic Quality
Rating Unit

Scenic Quality
Rating

*1 - Occurs within the Northeast Resource Area only

*2 - Occurs within the Royal Gorge Resource Area only

Some rating units cover several hundred square miles in extent, and due to the nature and extent of modifications which do exist within the Eastern Plains, it would be unjustified to say a particular modification has a substantial impact upon the entire scenic quality rating unit.

Secondly, BLM lands are very small in extent and are scattered throughout all areas of the Eastern Plains. Some of these BLM holdings may cover only a quarter section. Based on the fact that modifications primarily have a site specific impact rather than regional impacts, the evaluation of modification impacts would require identifying parcels of BLM land on the ground and then evaluating the modification in terms of its impact upon scenic quality for each BLM Holding. In order to evaluate a modification, site specific studies would be necessary to determine the extent of the modification, and the visibility of the modification from the BLM Holding. This type of detailed site analysis was not called for in the contract for this study.

Because modifications are not evaluated on a regional basis, a positive value of +2 was given to each Rating Unit. The modification value should be adjusted during site specific inventories of individual BLM holdings to reflect the impact of potential modifications upon the scenic quality of the site. The revised rating criteria and relative scores are identified in Figure 2.

VISUAL SENSITIVITY

Visual Sensitivity levels have been determined on the basis of foreground/middleground distance zones from major travel routes with high traffic volume (over 200 average daily traffic), public recreation use areas, and urban centers.

The intent of this analysis is to identify areas of public use or activity within the Eastern Plains that would be visually sensitive to significant land use changes. This approach is considered a low level analysis, in contrast to the Visual Sensitivity workshops that have been held for previous Resource Area inventories. The reason for this approach is, (1) that the majority of the Eastern Plains is in private ownership and in some form of agricultural production, and (2) BLM managed lands are very small parcels dispersed sparsely throughout the region.

VISUAL SENSITIVITY CRITERIA

High Sensitivity

Lands receiving a high sensitivity value have been delineated as the foreground/middleground zone of the high use volume travel routes. State Park & Recreation Areas, and major reservoirs with public access have also received a high sensitivity value based upon the fact that these areas have been developed for recreational purposes, and that the visual quality of the site is of high concern.

Moderate Sensitivity

Moderate Sensitivity use areas have been identified as state wildlife, and state hunting and fishing areas. These sites are less developed than recreational areas, and as a result the recreational use pattern is more dispersed. Use of these areas is limited to a seasonal basis due to the limit placed upon the hunting and fishing seasons. Use of these areas is oriented more around the resources of the site rather than the visual qualities of the landscape.

Low Sensitivity

Due to the changes made within the Distance Zone mapping as identified in the following section, the distance zone mapping was done from High Use Volume Key Observation Points. Following the BLM system, a high sensitivity is placed upon those lands contained within the foreground/middleground zone, and the background zone of a high use volume KOP. Due to the nature of the Eastern Plains and the expansiveness of this region, the sensitivity and impacts of potential modification is relatively low. Based upon field observations, the background zone normally receiving a high sensitivity value was changed to a low sensitivity which better reflects the sensitivity of this zone within the Eastern Plains study area.

The following tables list the state recreation, wildlife, and hunting/fishing areas that have been identified by planning units for this study. The appropriate sensitivity value of these areas are listed within the table. These state lands are indexed by planning unit and are represented in Table 3.

DISTANCE ZONES

CRITERIA

Distance Zone classifications are used to indicate the relative detail that is perceived in natural and man-made features on the landscape. The closer an object is to the viewer, the greater the detail in which it is perceived and the greater is its perceived scale in relation to the surrounding landscape.

Distance Zone categories as defined in the BLM VRM system include the following. Foreground/Middleground from viewer location to 3-5 miles; Background from 3-5 to approximately 15 miles; Seldom Seen beyond the approximate 15 mile limit or unseen.

Only high volume (over 200 cars per day) cross state routes were inventoried and analyzed for Distance Zones. There are a number of roads located throughout the Eastern Plains with a moderate use volume which was not taken into account. Due to this fact, a great deal of land that would be seen from these roads has been omitted from the inventory. As a result, the Background Zone includes all lands seen beyond the Foreground/Middleground Zone. Due to the expansion of the Background Zone, all lands normally inventoried would be accounted for.

The Key Observation Points (KOPs) identified and inventoried within this study area account for major cross-state travel routes, as well as state recreation and wildlife areas in which there would be a concern for the visual resource.

The KOPs identified by the BLM in which distance zones were delineated from are listed in Table 2.

Distance Zones were not delineated from state recreation and wildlife areas due to the relative limited visibility from those lands. State lands and their corresponding sensitivity are identified in Table 3.

VISUAL SENSITIVITY - USE VOLUME

TABLE 2
USE VOLUME DATA SUMMARY
(Northeast Resource Area)

KEY OBSERVATION POINT	LOCATION	VOLUME
I-25	--	High
US 287	Fort Collins north to state line	High
US	Loveland west to Estes Park	High
US 85	Brighton north to state line	High
I-76	--	High
US 14	Fort Collins west to Sterling	High
US 6	Sterling east to Holyoke	High
US 34	--	High
US 385	--	High
I-70	--	High
US 40	Kit Carson to Cheyenne Wells	High
US 287	Limon to Kit Carson, south to Eads	High

VISUAL SENSITIVITY

TABLE 3a
RECREATION AND WILDLIFE AREAS
Northeast Resource Area
(Pawnee Planning Unit)

Key No.	Name	Location	Acreage	Description	Sensitivity Level
1	Horsetooth Reservoir	Larimer County; west of Fort Collins	no data	State recreation area	High
2	Rocky Ridge #3 and #4	Larimer County; north of Fort Collins	120	Lakes	Moderate
3	Wellington Lake, #3 and #4	Larimer County; north-west of Wellington	50	Combined fish & game	Moderate
4	Boedecker Lake/Reservoir	Larimer County; south-west of Loveland	380	Combined fish & game	Moderate
5	Boyd Lake	Larimer County; north-east of Loveland	2532	State recreation area; combined fish & game	High
6	Loveland Ponds	Larimer County; south-east of Loveland	44.2	Combined fish & game	Moderate
7	Black Hollow Reservoir	Weld County; east of Fort Collins	574	Waterfowl and small game	Moderate
8	Seeley Lake/Reservoir	Weld County; north of Greeley	48	Lake	Moderate
9	Barbour Lakes	Weld County; northeast of Longmont	120	State recreation area	High
10	Banner Lakes Wildlife Area	Weld County; east of Hudson	943	Waterfowl and small game	Moderate

TABLE 3a (cont'd)

RECREATION AND WILDLIFE AREAS

Northeast Resource Area
(Pawnee Planning Unit)

Key No.	Name	Location	Acreage	Description	Sensitivity Level
11	Empire Reservoir	Weld and Morgan Counties; near county border	538.5	Wildfowl	Moderate
12	Jackson Reservoir	Morgan County; north of Goodrich	762.5	State recreation area	High

VISUAL SENSITIVITY

TABLE 3b

RECREATION AND WILDLIFE AREAS

Northeast Resource Area
(Sand Hills Planning Unit)

Key No.	Name	Location	Acreage	Description	Sensitivity Level
1	Sterling Reservoir	Logan County; north-west of Sterling	3,081	Lake	Moderate
2a 2b 2c	Logan County Hunting Leases	Logan County; several locations	5,420 (total)	Hunting and fishing	Moderate
3	Red Lion Wildlife Area	Logan County; north of I-76	1,298	State wildlife area	Moderate
4	Julesburg Leases	Sedgwick County; south of Julesburg	3,862	Hunting and fishing	Moderate
5	Prewitt Reservoir (South Platte Wildlife Area)	Logan and Washington southwest of Atwood	2,431	Lake	Moderate
6	Mahaney, Baughman and Diamond Leases	Washington County; north of Akron	64	Hunting and fishing	Moderate
7	Kleweno Lease	Yuma County; west of U.S. 385, near Bonny Reservoir	640	Hunting and fishing	Moderate
8	Bonny State Recreation Area	Yuma County; east of U.S. 385	7,000	State recreation area	High

VISUAL SENSITIVITY

TABLE 3c

RECREATION AND WILDLIFE AREAS

Northeast Resource Area
(Big Sandy Planning Unit)

Key No.	Name	Location	Acreage	Description	Sensitivity Level
1	Karval Reservoir	Lincoln County; south of Karval	235.85		Moderate
2	Flagler State Recreation Area	Kit Carson County, north of Flagler, off I-70.	369	State recreation area	High





LANDSCAPE TYPES

The following are descriptions of the Landscape Types found within the Eastern Plains portion of the Canon City District.

MAJOR RIVER VALLEYS

There are two major river systems which drain the Eastern Plains, the South Platte and the Arkansas. These represent the major water features in the plains, and, as a result, are used heavily for agriculture.

The South Platte River Valley has nearly level to gently rolling slopes, with no slopes exceeding 5%. The elevation ranges from 3500 to 5000 feet along this long river corridor. Most of the soils in the South Platte corridor are alluvial derivations.

In the Arkansas River Valley, slopes range from nearly level to gently rolling, with the majority of them being 2 to 3%. The elevation ranges from 3400 to 5000 feet in this extensive valley. Most of the soils along this major drainage were formed in alluvium.

The meandering patterns of the rivers are contained within broad, flat valley floors. Vegetation patterns are quite diverse and solid in form. A variety of cottonwoods and other deciduous trees are located throughout the valley bottoms, in combination with willows and other riparian species. The trees are often dense and provide vertical interest in an otherwise flat valley landscape. Colors are seasonally brilliant and contrast to neighboring vegetative associations. This landscape contrasts greatly

th adjacent landscape types, and thus is accentuated by those nearby
landscapes. Wildlife is heavily dependent on the river and its vegetation
for cover and food supplies.

Agricultural uses are dominant within the valley. Interesting patterns
of vegetation result from the intermixing of the agricultural crops and
the native riparian vegetation, providing for an interesting variety of
visual experiences. In the South Platte River valley, irrigated croplands
and riparian vegetation are closely interspersed, making it difficult to
visually separate the two. These two landscapes become an integrated visual
experience as the viewer progresses through this linear, narrow agricultural
river valley. On the other hand, the Arkansas River valley is broader in
scale, allowing the viewer to make a distinction between the riparian valley
and valley, the adjacent irrigated croplands, and the flat agricultural
terraces.

MINOR RIVER VALLEYS

In the minor river valleys, topography ranges from nearly level to gently sloping. The landform surface varies and may be smooth or have minor undulations. Elevation in these valleys ranges from 3000 to 6000 feet. The soils in this type have a variety of parent materials which includes loess formations, alluvial sediments, limestone outcrops, andolian sand.

Minor river valleys are found throughout the entire Eastern Plains region. The streams or creeks themselves are usually intermittent. Riparian trees and other water-oriented vegetation species are visible around the drainage channel. However, in contrast to the major river valleys, the riparian vegetation is much more sparse. Cottonwoods and other deciduous trees appear in scattered groupings. The drainage channel is commonly dry and is often lined with various grasses and small shrubs. The channel is only slightly incised, if at all, and its sideslopes gently abutt the flat river valley. The viewer perceives both the drainage channel and the valley sideslopes as a single, integral unit accented by scattered riparian trees that help provide vertical scale.

SAND HILLS AND SANDY UPLANDS

Because of a strong similarity between these two landscape types, sand hills and sandy uplands are combined into one narrative. Sand hill areas are found mostly in the Northeast Resource Area in the Eastern Plains.

In the Sand Hills, the elevation ranges from 3500 to 4500 feet. Topography varies, ranging from gently sloping hills with slopes of 3% or less to choppy, dune-like hills with slopes of 20-40% or more.

The soils are loose and sandy and very deep in some areas. Generally, the major soil association for the Sand Hills is the Valent series.

Sandy Uplands have elevations ranging from 3000 to 4500 feet. The topography is more gentle than that found in Sand Hill areas; the majority of slopes are less than 10%.

Soil composition of the Sandy Uplands is also loose and sandy, and is primarily the Valent series.

The most extensive area is in the southeast, which begins in the southern portion of Phillips County, extending into a sizable portion of Yuma County, and finally terminates along the north bank of the Arikaree River.

Beginning in the central section of Morgan County, near Fort Morgan, a linear band of Sandy Uplands runs alongside the southern terraces of the South Platte River and generally terminates in the western portion of Sedwick County. Further south, Sandy Uplands are found along the southern bank of Big Sandy Creek.

Still further south in the Royal Gorge Resource Area, Sandy Uplands are adjacent to irrigated agriculture areas along the south bank of the Arkansas River. They first appear just east of Las Animas and continue to the Kansas stateline.

Sand Hills are basically a series of rolling, tightly-spaced hills. The overall visual effect is a continuous gentle undulation of these hills. Vegetation is generally homogeneous, and consists of native sage scrub species that are used for grazing. The vegetation is somewhat coarse in texture but is very uniform in overall appearance. Occasionally small areas of exposed sand "blow-outs" add some color contrasts, but these are very minimal. A small portion of Yuma County's Sand Hill area is used for irrigated crops, and this in turn adds variety and color to an otherwise homogeneous landscape.

As a general rule, Sandy Uplands appear only on the south banks of the major rivers and creeks. Similar to the Sand Hills, Sandy Uplands are a series of closely spaced hills. However, the hills have a more gentle, rolling slope compared to those found in the Sand Hills. Like the Sand Hill area, Sandy Uplands are primarily grazing lands. Thus, a homogeneous scrub vegetation prevails; the occasional presence of grazing cattle and the variations in fencing that enclose the grazing lands add visual interest to the landscape.

Water features are not significant in these dry landscapes. The extensive Sand Hills of Yuma County have only one drainage, the Arikaree River, that is adjacent to the area on its south side. Because of their proximity to the major river corridors, the dry sandy uplands are accentuated by the dense riparian vegetation that borders them.

RIDGES

This landform rises somewhat dramatically out of the rolling hills environment which surrounds these steep, often vertical sandstone bluffs. Erosion has played a major role in their visual character. Broken and dissected, these ridges or bluffs contain a variety of colors which exhibit the geological formations of the ridges themselves. Due to the degree of slope, vegetation is limited primarily to grasslands rather than agricultural uses. The contrast between this landscape and surrounding lands accentuates the relief of these ridges and adds somewhat to the scenic quality of these sites. This contrast is accentuated by the expansive views from the crest of these Ridges. Water features are quite limited to runoff periods of heavy storms. These features are temporary and are not of any size that would add to the scenic quality of the site.

In the southern regions of the state, primarily in Pueblo County, Ridges occur in patterns or sequences, as compared to the northern regions in which Ridges are isolated from one another and appear singly as one ridge. These southern Ridges occur nearer the foothills and contain somewhat greater diversity of vegetative associations. Short grasses, shrubs, and some pinyon juniper are situated along these slopes adding to the scenic quality of the site. Water features are quite limited in this region and do not add greatly to the diversity or scenic qualities of the site.

BROKEN RIVER VALLEYS

Broken river valleys are the result of the down-cutting of major drainages through the plains environment. The result of the water influence is a highly dissected and eroded landscape. The relatively flat valley floor is accentuated due to the contrasting steep and broken sidewalls which display a variety of colors and textures due to the diverse geological make-ups. With a variety of geological formations and the water features contained within the relatively narrow valley bottoms, a diversity of spatial experiences results as one moves throughout this essentially enclosed viewshed. Contrasting vegetation species are present between the sidewalls, which are primarily grasslands or pinyon/juniper associations due to the degree of slope, and the riparian communities associated with the major drainage or water feature within the valley.

In the Northeast Resource Area south of Pawnee Buttes, one typically finds ledges and rock outcroppings on the rolling hills that frame the various drainages. Viewsheds are generally expansive in these broad, broken river valleys in contrast to the enclosed views seen in the individual river channels which are deeply incised.

In the southern regions of the state, pinyon juniper associations are present along the drier, steep sideslopes and add more color and diversity within the Broken River Valleys. The river valley itself is broad in horizontal rock outcroppings that are scattered on broken terrain. The water channel is deeply incised and well defined by the more broken, eroded, and steep sidewalls which define the entire unit. The drainage channel is also further accentuated by the healthy stands of cottonwoods and other deciduous trees that border it.

In the southwestern area, particularly the Purgatoire River Valley, the viewshed is also enclosed within the wide u-shaped valley. The valley drainages are enframed by the sidewalls which appear as mesa-like ridge tops. Horizontal rock outcroppings accentuate these distinct mesa-like tops. Black, blocky rocks on the valley sideslopes add interest to the landscape. A variety of spatial experiences, colors and textures are evident in this landscape. The dark green pinyon juniper, on the drier sideslopes is in high contrast with the lighter grasslands within the valley floor. Light green cacti also add to this color contrast.

East of the Purgatoire River a number of similar valleys are less diverse in landform due to the smaller water features which have had less of an impact upon the erosion of the landscape.

TERRACE LANDS

This landscape is directly associated with river corridors and is situated adjacent to the immediate river valley. Terraces have a very flat landscape terrain, and are generally found in a sequence which consists of more than one terrace. Terraces are separated from one another by moderate slopes which fall to the next terrace below the upper terraces. Terraces are usually bordered by irrigation channels in the major river valleys. Though no outstanding landform features exist within this landscape, water features are at times fairly numerous.

This landscape is accentuated by the adjacent major river corridors, the South Platte and the Arkansas, and the dense riparian vegetation situated within these valleys. As a result, the major river valleys add to the scenic quality of the terrace landscape by increasing the visual contrast and accentuating the contrast between these two related, adjacent landscape character types.

Associations within this landscape also include small river valleys in certain situations. Due to the minor extent of the valley floor, the association consists primarily of terraces which lead down to the narrow river corridors. With the influence of the water features adjacent to, or contained within terrace landscapes, vegetational patterns are somewhat diverse, adding color and texture to this landscape. Because of the abundant water supply available, a variety of agricultural land uses are present along terrace landscapes. These agricultural lands increase the variety of colors and vegetational patterns found within the area.

UPLAND ROLLING HILLS

Upland Rolling Hills are the most common landscape type in the Eastern Plains. The overall terrain is essentially flat, with some rolling hills having gentle slopes that extend over large areas. There are a variety of agricultural landscapes within this terrain although landscape color contrast is generally subtle. Both the irrigated and some of the unirrigated agriculture are accountable for the more interesting color patterns due to the various crop types. For example, corn fields add not only color but also a vertical interest due to the tall corn stalks. The various farming stages on the planting fields also add interest. Bare soil, either recently planted or left fallow, contrasts with the green field crops and the mature golden wheat fields that are ready for harvest. Bales of sorghum and alfalfa in the harvested fields also attract the viewer's eye while driving through the landscape.

On the other hand, very little color contrast exists in the dry upland grazing areas. Typically the vegetation consists of sage scrub and native grasses that tend to be homogeneous in color and texture.

Natural water features are not apparent in any of these agricultural landscapes. The agricultural crops utilize either the irrigation ditches, ground water or man-made irrigation structures for their water resources; none of these sources are visually significant.

BROAD VALLEYS

Compared to the other landscape types, Broad Valleys are relatively scarce in the Eastern Plains. They are found only in the Northeast Resource Area. They include the North Fork of the Republican River, the South Fork of the Republican River above Bonny Reservoir, and the Arikaree River, all of which are situated near the eastern boundary of the study area.

Typically, a Broad Valley encompasses both the river with its riparian vegetation and the expansive, gently sloping grassland sideslopes to the valley itself. These components are an integrated visual experience. The riparian cottonwoods and other deciduous trees often appear in broken groupings, thus allowing the various grasses to grow along the river banks. Generally, the Broad Valley riparian trees are not as dense as those found in the major river valleys for example.

River flow within the three Broad Valleys is seasonally intermittent. The water influence is mainly reflected in the healthy vegetation that is seen throughout the expansive valley.

MOUNTAINS

Occurring above the hogback ridges in the west, the mountainous landscape type contains the greatest diversity of all character types. Steep and broken slopes are common to this landscape which contains massive rock outcrops and extensive talus slopes. Drainages break the uniformity of this landscape creating deeply incised canyons or major valleys with relatively steep sidewalls. Vegetation patterns and associations are quite diverse in amount of cover, texture, and color. Colors are seasonally dominating, and have a great impact upon the overall scenic quality. Water features are numerous, ranging from major rivers to small isolated mountain lakes. The visual experiences constantly change as one moves throughout this landscape. Focal points are numerous and may include high Alpine ridges and peaks, major water features, or vegetational patterns, groupings, or individual vegetative species ranging from Quaking Aspen down to Alpine flowers. This landscape type, similar to the Hogback Ridges, is a very distinct landscape primarily due to the vertical relief and its dramatic rise out of the Eastern Plains.

HOGBACK RIDGES

In the Eastern Plains region, hogbacks are found along the Front Range due west of Fort Collins and southwest of Loveland. The Hogback Ridges serve as a transitional landform between the extensive Eastern Plains and the Rocky Mountains landscape.

The Hogback Ridges have steep western slopes and nearly uniform rolling eastern slopes. The elevation ranges from 5600 to 7000 feet. The soils are usually deep, and the parent material is mostly weathered sandstone.

These ridges are very linear in pattern and are broken by major rivers which have cut through this landscape. Rising uniformly out of the plains, the eastern aspects contain some diversity of vegetational types which include Scrub Oak, Mountain Mahogany, Ponderosa Pine, and upright junipers. These associations are not quite as extensive in cover compared to the mountainous landscape. Western aspects, in contrast, are at times very steep and contain many linear rock outcroppings which are generally situated at the crest of the ridge itself. These aspects exhibit a variety of geological make ups which offer variety in color and texture. Below these steep outcrops are talus slopes which contain the same vegetational species that are found on the eastern aspects.

Views within this landscape are quite unique and offer many contrasts due to the extensive panoramic views of both the undulating Eastern Plains and the diverse mountainous peaks as the viewer stands on top of these Hogback Ridges. The close proximity of the mountain ranges and Eastern Plains helps accentuate this distinct transitional landscape and landform.

THE BLACK FOREST

The Black Forest is located in the northwestern corner of El Paso County, abutting the northern county line boundary, due east of I-25. Its eastern reach includes Rattlesnake Butte and the adjacent ridges, all of which are heavily vegetated.

Slopes in the Black Forest vary from nearly level to very steep rolling hills. The elevation ranges from 6500 to 7500 feet. Soils in this area are deep and well-drained and are formed from weathered, sedimentary rock materials.

This landscape type is primarily an interface between the undulating upland grazing grassland and the mixed Alpine coniferous forests in the Rocky Mountain ranges. The Black Forest landform becomes noticeably more rolling compared to the gently rolling terrain of the adjacent grazing lands. Vegetation in this area is typically homogeneous and consists of dense stands of Ponderosa Pines with some grassland understory.

Water features are not noticeably visible within the Black Forest. Many small creeks originate in the forest but none are significant river valleys. The Black Forest is a visually distinct landscape primarily due to the vegetational patterns which contrasts greatly to the surrounding landscapes.

Because of the homogeneous landscape composition, color contrast is more apparent when the viewer is on the edge of this landscape type and near the adjacent grasslands. The dark green Ponderosa Pines are more sparse and are offset by the lighter colored grasslands. Thus, this landscape accentuates the adjacent, slightly rolling grasslands with its thick, dark green forest and pronounced rolling hills.

MESAS

The mesa landscape type is found only along the southern boundary of the state in the Royal Gorge Resource Area. This landscape encompasses the very southwestern corner of the study area. The most extensive of these mesas is Mesa de Maya ("Table of Mail" or armoured mesa). Other smaller mesas situated within the study area include Tecolote, Fowler, and Carrizo Mountain.

Topography varies from very steep breaks, escarpments or canyon sides on mesa side slopes to gently sloping or flat areas on the mesa tops. Elevations generally range from 3500 to 6500 feet, with a high point of 6890 feet on top of Mesa de Maya. Mesa soils primarily consist of weathered basalt alluvials.

Two or three mesas rise dramatically above the surrounding plain to the north. Due to the vertical relief of these rocky sideslopes, the mesas form a distinct visual boundary to the rolling hills of the plains situated around their bases.

In addition to the contrast in landform, the mesas also contrast greatly in vegetative type. Pinon-Juniper and Gambel Oak dominate the dry, rocky escarpment sideslopes. The contrast between vegetative types and colors also provides a distinct visual boundary between the mesas and surrounding plain and hills. The mesa tops are typically a grassland environment with small clumps of Pinon-Juniper associations.

Water features are quite limited as these landforms form the headwater drainages to many small creeks, and as such add little to the scenic quality.

Views are panoramic in all directions within this landscape. These views accentuate the vertical relief of these mesas as well as add to the scenic quality. Views to the west include a spectacular vista of the Culebra Mountain Range, an extension of the Sangre de Cristo Range.

In general, this landscape is a very distinctive type due to contrasting landscape elements, and the fact the mesas provide a distinct visual terminus to the extensive rolling hills of the Eastern Plains.

RESERVOIRS

There are a number of reservoirs situated throughout the Eastern Plains, and are primarily adjacent to the major river systems. Some reservoirs are used for agricultural demands, while others are oriented around recreational opportunities. Situated within a variety of landscapes, all of these water bodies add to the diversity and scenic quality of the Eastern Plains. Visual access to these reservoirs is quite limited by the surrounding landforms, and as such, they become site-specific focal and interest points. Vegetation varies around the reservoirs primarily due to the surrounding landscape character. Colors within this landscape constantly change due to the reflections of the sky, and the change of the vegetation within different seasons.

This landscape is distinctive primarily because of limited water features within the Eastern Plains. They also provide a relatively unique recreational opportunity for those in this region.

LAND USE PATTERNS

The following are descriptions of the Land Use Patterns found within the Eastern Plains portion of the Canon City District.

a. Native Riparian Communities

Dense vegetative patterns occur within this landscape due to ample water availability from the major river systems. Willows, cottonwoods and other aquatic-oriented species follow the meandering stream coursed in dense flowing patterns. The riparian trees and shrubs add vertical scale and frame the broad rivers in a curvilinear fashion. Colors are quite diverse most of the year and are highlighted in the spring and fall. Vegetative patterns and associations are very diverse within riparian communities, thus making them visually appealing with many contrasts.

b. Irrigated Agriculture

Occurring primarily along major river corridors and areas in which ground water supplies are plentiful, irrigated croplands contain a variety of vegetative patterns. Due to the nature of harvesting methods, these croplands are characteristically situated in rectilinear arrangements. A variety of experiences result as one moves throughout these lands due to the diversity of croplands and the heights of the various crop species. Vegetation is generally lush and healthy, and displays some variety of colors and textures in the rectilinear fields. Individual residences are numerous and are typically surrounded by cottonwoods which add to the diversity and interest of the landscape.

c. Unirrigated Agriculture

Unirrigated croplands lack outstanding color contrasts primarily because less diversity exists in crop species. Wheat and millet are the two more commonly grown species. The landscape appears fairly homogeneous. Visual variety is created by the occasional appearance of grain storage towers in the various farming communities. These tall structures add a vertical focal point to the landscape. The scattered farm dwellings with their large deciduous trees also serve as focal points that add interest to this homogeneous landscape.

d. Grazing Lands

Grazing land use accounts for a sizeable portion of the Eastern Plains region. However, due to a lack of vegetation diversity, this landscape appears visually homogeneous throughout. Little color contrasts exist between vegetative types. Primarily situated within a "drier" site, the visual experiences are quite limited. The dominant visual experience thus becomes the sky, with occasional cattle grazing on the landscape. Isolated farming communities, with their silos and grain storage towers, help break up the monotonous homogeneity of this landscape.

e. Pinyon-Juniper or Ponderosa Pine

Although these two vegetation types occur independently, their visual patterns are similar. Pinyon-Juniper appears in the southern region on the drier slopes of the broken river valleys and the foothills. It usually occurs in broken groupings, thus exposing the soil or understory grasses that contrast with these dark green, large shrubs.

Ponderosa Pines are found in the foothills which includes the Black Forest. Similar to the Pinyon-Juniper Association, Ponderosa Pines are spaced in groupings; the contrasting understory is visible and this enhances the overall appearance of the landscape. Because these two associations are generally bordered by grasslands, both vegetative groupings act as focal points due to the contrasts created in color, vegetative height, and form.

f. Mixed Sub-Alpine Conifers

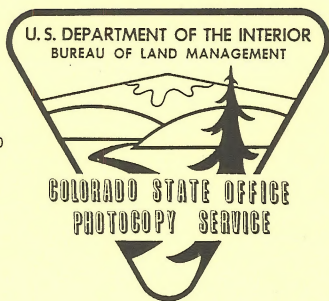
This landscape contains a variety of vegetative patterns and vegetative types. Representative species include Ponderosa Pine, Lodgepole Pine, Spruce, Fir and Quaking Aspen. The aspen and the understory scrub oak display seasonally striking colors that contrast vividly with the dark green pines and firs and greyish green spruce of this association. Interesting spatial experiences result as one moves through this type. A variety of views ranging from enclosed to panoramic occur throughout this landscape.

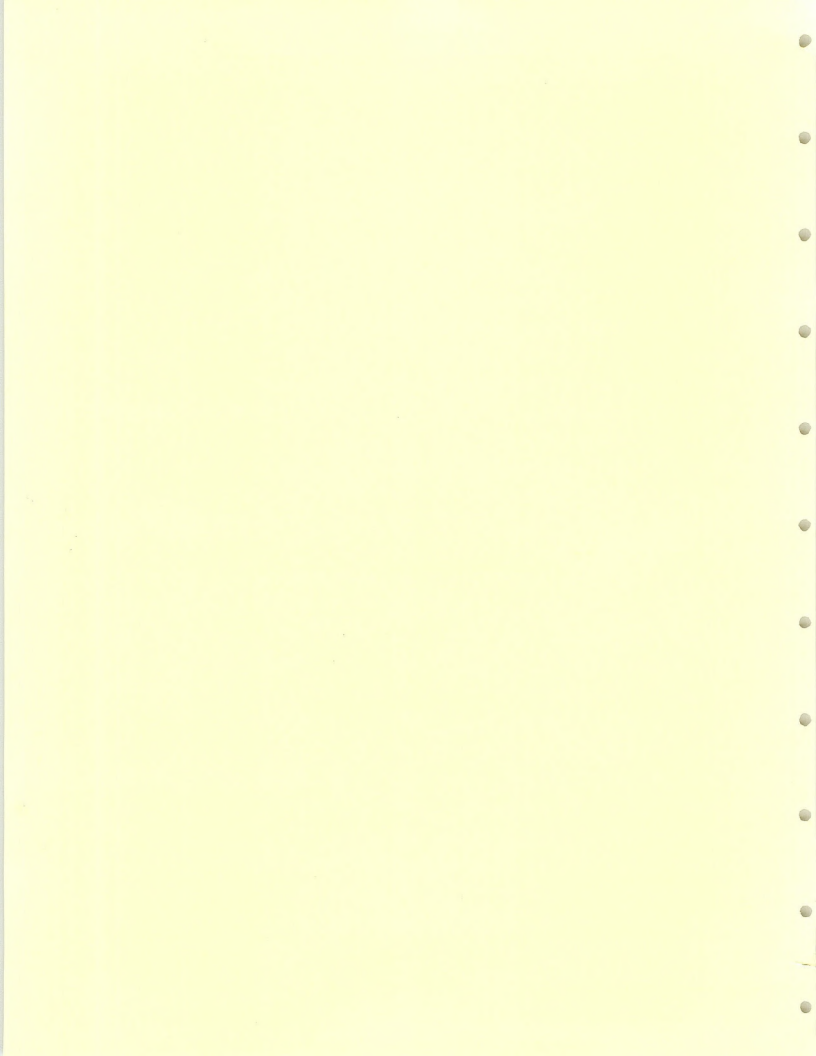
g. Mixed Agriculture

This land use pattern contains a variety of land uses that are integrated and have various visual patterns. The land uses in this group are an inter-mix of irrigated and unirrigated agriculture and grazing land.

The diversity of crop species and their respective colors is not as great as those within exclusively irrigated croplands, and as such lack a great overall visual diversity. Similar to irrigated lands, patterns are rectilinear though they are much larger in scale. Generally, vegetation is less lush, thus reducing color variations which in turn diminish the distinctiveness of the different vegetation types.

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